

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A sealing machine with a layered web sealing and severing head, comprising:

means for providing a layered web formed into a tube;

[[a]] an electrically conductive knife having a first thermal conductivity;

a non-electrically conductive supporting base having a second, lower, thermal conductivity;

said supporting base extending, in a lengthwise direction of said knife, along opposite faces of said knife so as to partially envelop said knife such that said knife is immobly supported by said supporting base and protrudes from said supporting base;

a terminal at either end of said knife;

at least one electromotive force for coupling to each said terminal;

a processor for controlling said electromotive force for establishing a baseline current through said knife and a momentary spike current through said knife, said baseline current sufficient to establish a baseline temperature in said supporting base, said baseline temperature chosen based on a composition of said layered web so as to be sufficient to seal walls of said tube together but insufficient to sever said tube by melting.

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (currently amended) The head machine of claim 1 wherein said knife is partially embedded in said supporting base.

9. (currently amended) The head machine of claim 1 wherein said supporting base comprises two base halves that sandwich said knife therebetween.

10. (currently amended) The head machine of claim [[2]] 1 wherein said supporting base is fabricated of anodised aluminum and said knife if fabricated of metal.

11. (currently amended) The head machine of claim [[2]] 1 wherein said supporting base is fabricated of ceramic.

12. (currently amended) The head machine of claim 1 wherein said supporting base tapers to a point where said knife protrudes from said supporting base.

13. (currently amended) The head machine of claim 1 wherein said knife is a strip.

14. (currently amended) A sealing machine with a jaw assembly, comprising:
a sealing head to seal a layered web into a tube;
a first jaw with a backstop at one side of said tube;
an opposed second jaw with a sealing head at an opposite side of said tube, said sealing head having:

[[a]] an electrically conductive strip having a first thermal conductivity;
a non-electrically conductive supporting base extending along opposite faces of said strip
so as to partially envelop said strip such that said strip is immobily supported by said supporting base and protrudes from said supporting base toward said backstop;
said supporting base having a second, lower, thermal conductivity;
at least one electromotive force for coupling to either end of said strip;
a processor for controlling said electromotive force for establishing a baseline current
through said strip and, when said strip abuts said backstop through said tube, a momentary spike
current through said strip, said baseline current sufficient to establish a baseline temperature in
said supporting base, said baseline temperature chosen based on a composition of said layered
web so as to be sufficient to seal walls of said tube together but insufficient to sever said tube by
melting, said spike current through said strip sufficient to temporarily elevate a temperature of
said strip to a temperature sufficient to sever said tube.

15. (cancelled)

16. (cancelled)

17. (currently amended) The ~~sealing jaw assembly machine~~ of claim 14 further comprising means for reciprocating said first jaw and said second jaw toward and away from each other.

18. (currently amended) The ~~sealing jaw assembly machine~~ of claim 14 wherein said supporting base tapers to a point where said strip protrudes from said supporting base.

19. (currently amended) A method of sealing and cutting a layered web formed into a tube, comprising:

heating a sealing head comprising a knife having a first thermal conductivity protruding from a supporting base having a second, lower, thermal conductivity, to a baseline temperature,

- Page 5 -

said baseline temperature chosen based on a composition of said layered web so as to be sufficient to seal layers walls of said web tube together but insufficient to sever said tube by melting;

pressing said sealing head against said tube formed from said layered web for a dwell time in order to form a seal across said tube; and

thereafter, spiking a temperature of said knife above said baseline temperature so as to sever said web tube by melting.

20. (cancelled)

21. (previously presented) The method of claim 19 wherein said heating said sealing head to a baseline temperature comprises establishing a first electric current through said knife and wherein said spiking said temperature of said knife comprises temporarily establishing a second electric current through said knife, said second electric current being greater than said first electric current.

22. (currently amended) The method of claim 19 wherein said layered web is a laminate of at least two different materials ~~and said baseline temperature is selected so as to be sufficient to seal said layered web but insufficient to cut through said layered web.~~

23. (new) The method of claim 22 wherein said layered web is a polyethylene/polypropylene laminate.

24. (new) The method of claim 23 further comprising filling said tube with a liquid prior to said pressing.

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Reply to Office Action of October 1, 2008

- Page 6 -

25. (new) The method of claim 19 wherein said pressing forms a seal across said tube along a narrow band and said spiking a temperature of said knife severs said tube through a middle of said band.

26. (new) The machine of claim 14 wherein said layered web is a laminate of at least two different materials and said baseline temperature is chosen based on said at least two different materials.

27. (new) The machine of claim 26 wherein said layered web is a polyethylene/polypropylene laminate.

28. (new) The machine of claim 14 further comprising a motor for advancing said jaws toward one another and wherein said processor is also for controlling said motor.

29. (new) The machine of claim 17 wherein said processor is for controlling said motor so that said strip abuts said backstop through said tube for a dwell time sufficient to form a seal across said tube before controlling said electromotive force to spike said current in said strip to sever said tube.

30. (new) The machine of claim 17 further comprising a spigot for filling said tube with a liquid.